

REMARKS

Claims 92-238 are pending; claims 92-103, 109-116, 118, 123-129, 138, 139, 148, 151-154, 160-176, 184-190, 192, 197-203, 212, 213, 222, 225-228 and 234-237 are rejected; and claims 104-108, 117, 130-137, 140-147, 149, 150, 155, 156, 177-183, 191, 204-211, 214-221, 223, 224, 229, 230 and 238 are objected to in this application. Claims 92, 104, 130, 131, 134, 140, 143, 146, 149, 155, 165, 177, 204, 205, 208, 214, 217, 220, 223, 229, 230 and 238 are amended hereby; claims 96 and 169 are cancelled hereby; and claim 239 is added hereby.

Responsive to the rejection of claims 163 and 164 under 35 U.S.C. § 102(b) as being anticipated by German Patent DE 199 46 972 (DE '972), Applicants respectfully traverse the rejection and submit that claims 163 and 164 are in condition for allowance.

DE '972 illustrates a pressure space through which a fiber web travels at least once. The pressure space is bounded by four rolls, each roll in compressive contact with two of the other three rolls with a fiber web being compressed between two membranes and traveling through the points of compressive interaction between the rolls (Figs. 1 and 2). The paper web passes between a press felt 22 and a membrane 26 through a first press nip 52 when entering the pressure space, then passes between press felt 22 and roll 34 through a second press nip 53 when leaving the pressure space. The same sequence happens again when the paper web enters a second time into the pressure space at nip 54 and leaves the pressure space at nip 55 as it is sandwiched between membrane 26 and press felt 24. However, there is no indication of an imprinting band passing together with a plurality of membranes and the paper web through a gas pressure space.

In contrast, claim 163, recites in part:

guiding the fiber web, said plurality of membranes and an imprinting band through said pressure space at least once.

(Emphases added). Applicants submit that such an invention is neither taught, disclosed nor suggested by DE '972 or any of the other cited references, alone or in combination, and includes distinct advantages thereover.

DE '972 includes a paper web passing between a press felt and a membrane through a press nip when entering the pressure space then it passes between press felt and a roll through a second press nip and leaving the pressure space. DE '972 has no indication that an imprinting band is utilized as the paper web passes through the pressure space. Therefore, DE '972 and any of the other cited references, alone or in combination, fail to disclose, teach or suggest the step of guiding the fiber web, a plurality of membranes and an imprinting band through a pressure space at least once, as recited in claim 163.

An advantage of Applicants' invention is that an imprinting band is used in the pressure space to carry the fiber web therethrough. This maintains and enhances the imprinting of the fiber web by being in contact with the imprinting band. For the foregoing reasons, Applicants submit that claim 163, and claim 164 depending therefrom, are in condition for allowance, which is hereby respectfully requested.

Responsive to the rejection of claims 92-103, 109, 110, 113-116, 123-129, 138, 139, 148, 154, 160-162, 165-176, 184, 187-190, 192, 197-203, 212, 213, 222, 228 and 234-236 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,103,062 (Ampulski, et al.), Applicants have amended claims 92, 165 and submit that claims 92-103, 109, 110, 113-116, 123-129, 138, 139, 148, 154, 160-162, 165-176, 184, 187-190, 192, 197-203, 212, 213, 222, 228 and 234-236 are now in condition for allowance.

Ampulski, et al. disclose a method of wet pressing tissue paper (Figs. 1 and 5). Including transferring an embryonic web 120 to imprinting member 219 and deflecting a portion of the

paper making fibers in web 120 into deflection conduit portion 230 by applying a differential fluid pressure to embryonic web 120. Embryonic web 120 can be vacuum transferred from forming member 11 to imprinting member 219 by a vacuum box 126. The pressure differential across embryonic web 120 provided by vacuum source 126 deflects the fibers into deflection conduit portion 230 and removes water from the web through deflection conduit portion 230 to raise the consistency of the web to between about 18% and about 30%. The pressure differential across embryonic web 120 can be between about 13.5 kPa and about 77.8 kPa. Upstream of compression net 300, a portion of intermediate web 120A is deflected into imprinting member 219. Felts 320 and 360 are relatively dry when felts 320 and 360 enter nip 300 in order to provide efficient drying of the web (column 10, lines 6-67). Press roll 362 can have a generally smooth surface or have a plurality of openings in flow communication with the source of vacuum for facilitating water removal from intermediate web 120A (column 12, lines 3-8). In Fig. 1, a first pressure field is created by vacuum 126 and a second pressure field is created by shoe press assembly 700.

In contrast claim 92, as amended, recites in part:

forming the fiber web on said imprinting band.

Applicants submit that such an invention is neither taught, disclosed nor suggested by Ampulski et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Ampulski et al. discloses a method of wet pressing tissue paper in which the embryonic web is transferred to an imprinting member. This transfer step clearly indicates that the web was not formed on the imprinting member. The technique of transferring the embryonic web is discussed as utilizing a vacuum to transfer the embryonic web onto the imprinting member.

Therefore, Ampulski et al. and any of the other cited references, alone or in combination, fail to disclose, teach or suggest the step of forming the fiber web on an imprinting band, as recited in claim 92.

An advantage of Applicants' invention is that the web is formed and dried on the imprinting band, thereby allowing the forming of a three dimensional surface as the structure and strength are fixed by the drying process. For the foregoing reasons, Applicants submit that claim 92, and claims 93-103, 109, 110, 113-116, 123-129, 138, 139, 148, 154 and 160-162 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In further contrast, claim 165, as amended, recites in part:

an imprinting band wherein the fiber web is formed thereon;

(Emphasis added). Applicants submit that such an invention is neither taught, disclosed nor suggested by Ampulski et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Ampulski et al. discloses a method of wet pressing tissue paper in which the embryonic web is transferred to an imprinting member. This transfer step clearly indicates that the web was not formed on the imprinting member. The technique of transferring the embryonic web is discussed as utilizing a vacuum to transfer the embryonic web onto the imprinting member. Therefore, Ampulski et al. and any of the other cited references, alone or in combination, fail to disclose, teach or suggest an imprinting band wherein the fiber web is formed thereon, as recited in claim 165.

An advantage of Applicants' invention is that the web is formed and dried on the imprinting band, thereby allowing the forming of a three dimensional surface as the structure and strength are fixed by the drying process. For the foregoing reasons, Applicants submit that claim

165, and claims 166-176, 184, 187-190, 192, 197-203, 212, 213, 222, 228 and 234-236 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Responsive to the Examiners rejection of claims 92, 111, 112, 165 and 184-186 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 6,090,241 (Trokhan et al.), Applicants have amended claims 92 and 165, and submit that claims 92, 111, 112, 165 and 184-186 are now in condition for allowance.

Trokhan et al. disclose an ultrasonically assisted process for making differential density cellulosic structure containing fluid latent indigenous polymers including the step of providing a fibrous web 10 having a fluid latent indigenous polymer in water having a consistency of about 10% to about 70%, which indicates a water content from 90% to 30%. Fibrous web 10 may be made by any paper making process and may include a through-air drying process (column 6, lines 7 through column 7, line 5). Ultrasonic energy is applied to web 10 having a frequency higher than about 16,000 Hz with a preferred range of 16,000 Hz to about 100,000 Hz (column 9, lines 49-57).

In contrast claim 92, as amended, recites in part:

forming the fiber web on said imprinting band.

Applicants submit that such an invention is neither taught, disclosed nor suggested by Trokhan et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Trokhan et al. disclose an ultrasonically assisted process for making differential density cellulosic structure containing fluid latent indigenous polymers including the step of providing a fibrous web having a fluid latent indigenous polymer in water having a consistency of about 10% to about 70%. Ultrasonic energy is applied to the web in order to form the differential density

structure in the web, rather than on an imprinting band as claimed by Applicants. Therefore, Trokhan et al. and any of the other cited references, alone or in combination, fail to disclose, teach or suggest the step of forming the fiber web on an imprinting band, as recited in claim 92.

An advantage of Applicants' invention is that the web is formed and dried on the imprinting band, thereby allowing the forming of a three dimensional surface as the structure and strength are fixed by the drying process. For the foregoing reasons, Applicants submit that claim 92, and claims 111 and 112 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

In further contrast, claim 165, as amended, recites in part:

an imprinting band wherein the fiber web is formed thereon;

(Emphasis added). Applicants submit that such an invention is neither taught, disclosed nor suggested by Trokhan et al. or any of the other cited references, alone or in combination and includes distinct advantages thereover.

Trokhan et al. disclose an ultrasonically assisted process for making differential density cellulosic structure containing fluid latent indigenous polymers including the step of providing a fibrous web having a fluid latent indigenous polymer in water having a consistency of about 10% to about 70%. Ultrasonic energy is applied to the web in order to form the differential density structure in the web, rather than on an imprinting band as claimed by Applicants. Therefore, Trokhan et al. and any of the other cited references, alone or in combination, fail to disclose, teach or suggest the step of forming the fiber web on an imprinting band, as recited in claim 165.

An advantage of Applicants' invention is that the web is formed and dried on the imprinting band, thereby allowing the forming of a three dimensional surface as the structure and strength are fixed by the drying process. For the foregoing reasons, Applicants submit that claim

165, and claims 184-186 depending therefrom, are now in condition for allowance, which is hereby respectfully requested.

Claims 151-153 and 225-227 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Ampulski et al.. However, claims 151-153 depend from claim 92 and claims 225-227 depend from claim 165, and claims 92 and 165 have been placed in condition for allowance for the reasons given above. Accordingly, Applicants submit that claims 151-153 and 225-227 are now in condition for allowance, which is hereby respectfully requested.

Applicants thank the Examiner for the indication that claims 104-108, 117, 130-137, 140-147, 149, 150, 155, 156, 177-183, 191, 204-211, 214-221, 223, 224, 229, 230 and 238, would be allowable if placed in independent form. To that end Applicants have placed claims 104, 130, 131, 134, 140, 143, 146, 149, 155, 177, 204, 205, 208, 214, 217, 220, 223, 229, 230 and 238 in independent form thereby placing claims 104-108, 117, 130-137, 140-147, 149, 150, 155, 156, 177-183, 191, 204-211, 214-221, 223, 224, 229, 230 and 238 in condition for allowance, which is hereby respectfully requested.

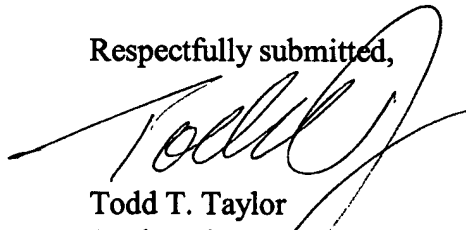
Claim 239 has been added to further protect Applicants valuable intellectual property rights. Air passes through the imprinting band for passing through the paper web as disclosed in the specification and as illustrated in the figures, as such no new matter has been added in this claim.

For the foregoing reasons, Applicants submit that no combination of the cited references teaches, discloses or suggests the subject matter of the amended claims. The pending claims are therefore in condition for allowance, and Applicants respectfully request withdrawal of all rejections and allowance of the claims.

In the event Applicants have overlooked the need for an extension of time, an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby conditionally petition therefor and authorize that any charges be made to Deposit Account No. 20-0095, TAYLOR & AUST, P.C.

Should any question concerning any of the foregoing arise, the Examiner is invited to telephone the undersigned at (260) 897-3400.

Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: MS Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: November 22, 2004.

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